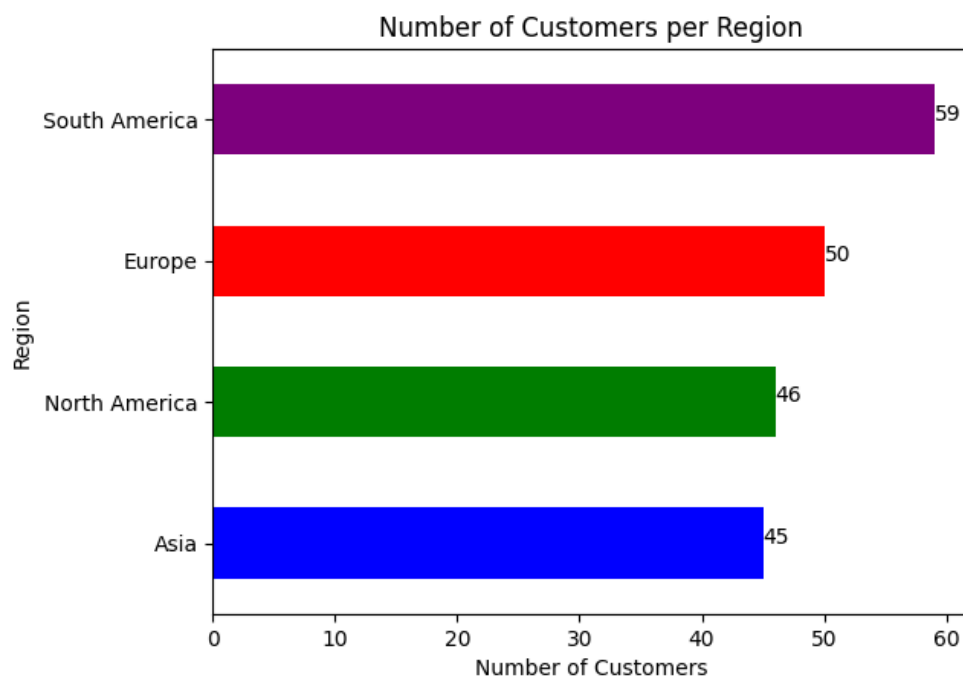


Exploratory Data Analysis Results and Insights

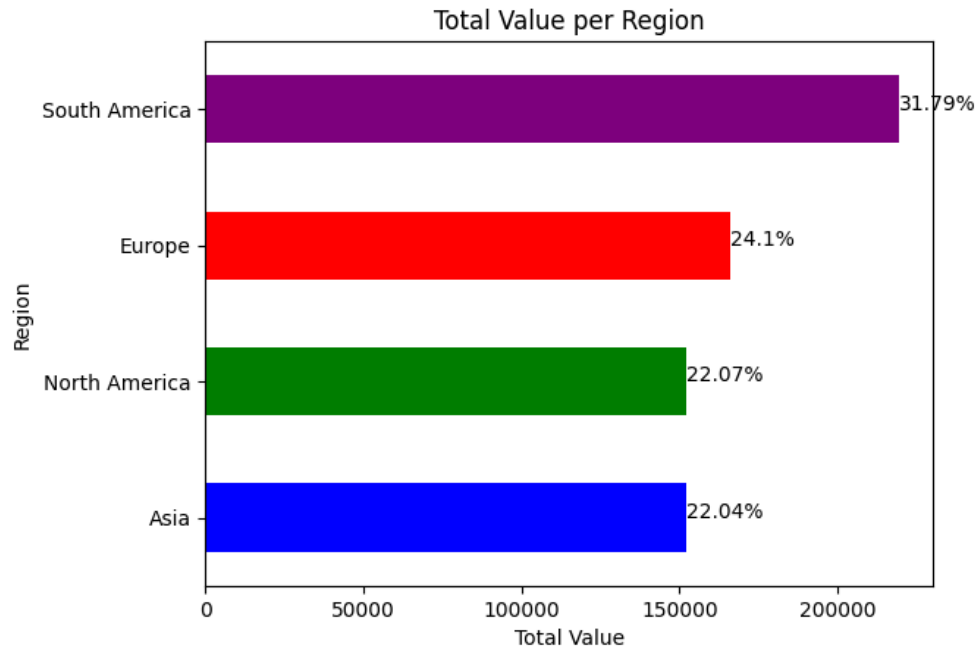
Zeotap Internship Assignment

By Ojas Sinha

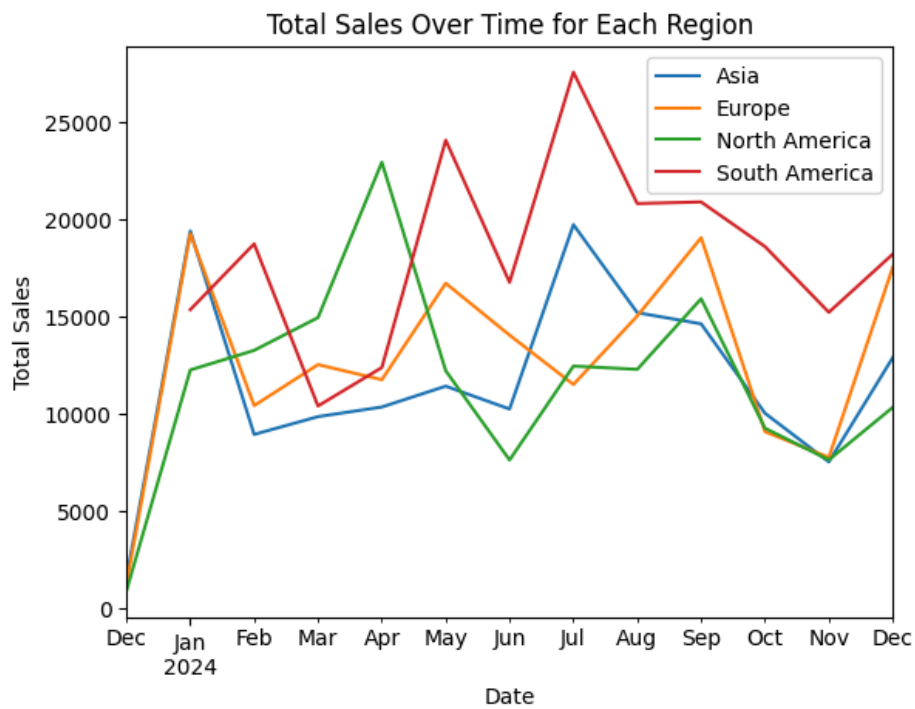
1. Customer Base Analysis:



- The highest number of customers are from South America and they also contribute the most to the total value of sales (31.7%) while the other three regions contribute 22-24%.
- In South America, the most popular categories and the categories that produce the most value are **electronics** (29.4%) and **books** (27.4%) with clothing being close (25%) and although home decor sells just as well as the others, the value contributed by it to the total sales is just 18.2%.
- Focus marketing efforts and personalized promotions on customers in South America to sustain and grow revenue further.



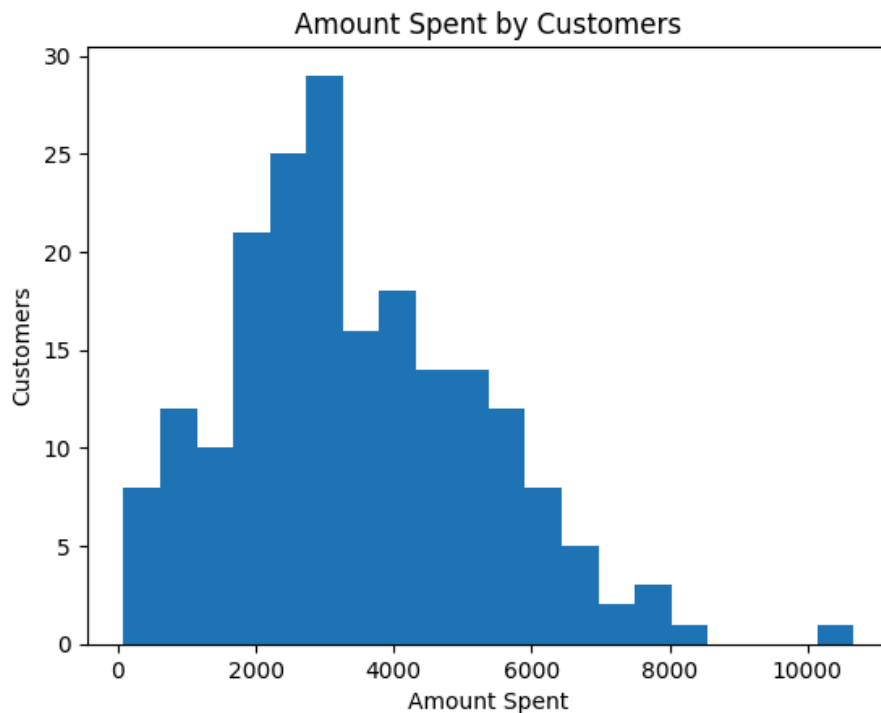
2. Sales Trends Over Time:



- The peak sales in each region differs:
 - Asia - January, July

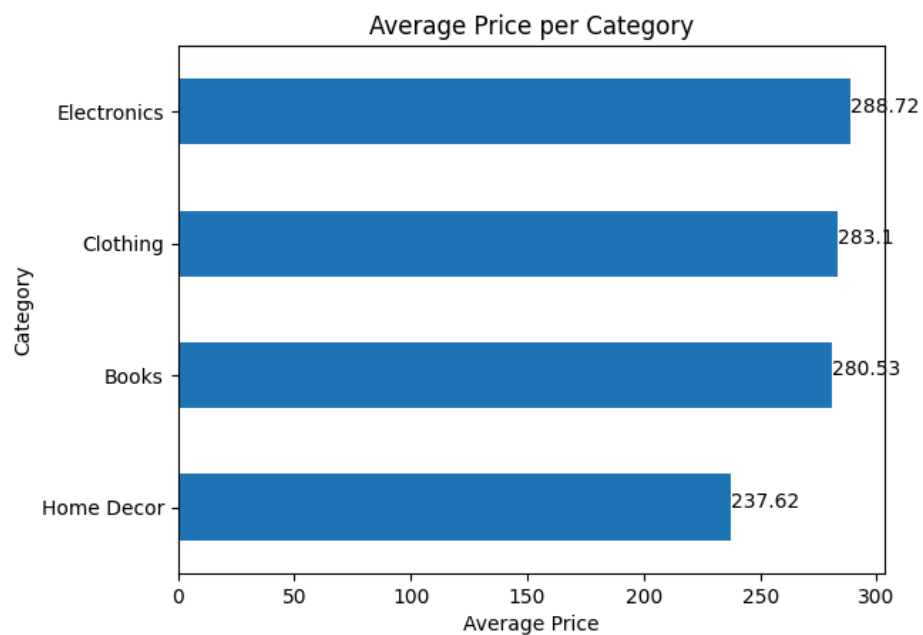
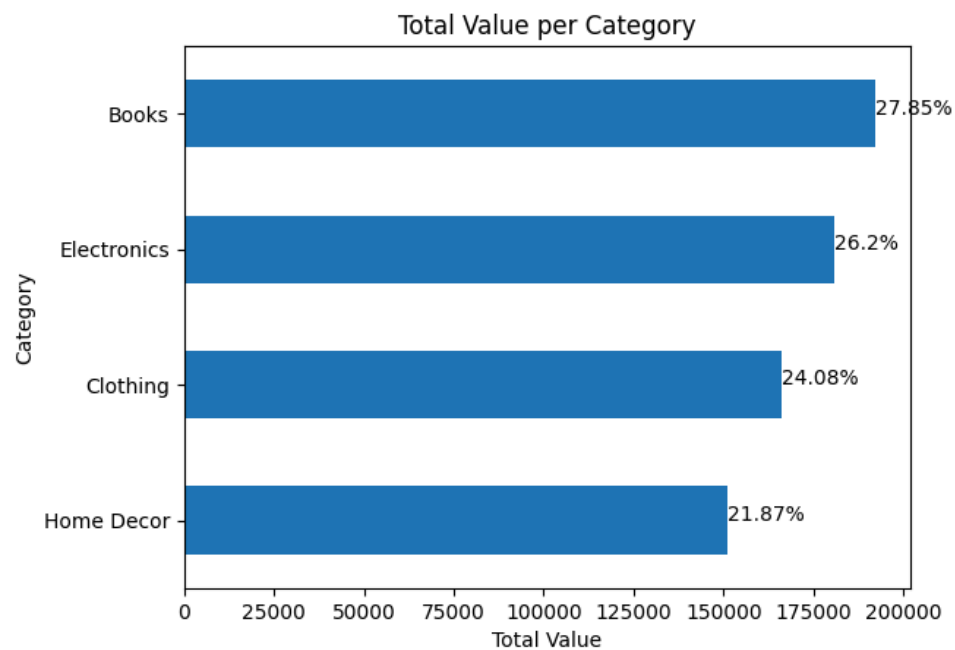
- Europe - January, September
- North America - April
- South America - July
- One common trend is the dip in sales in November and a similar dip in sales in June.
- The reasons for these trends should be researched and inventory should be acquired and managed accordingly.
- Marketing campaigns can be executed during peak sales seasons to capitalize on increased consumer spending.

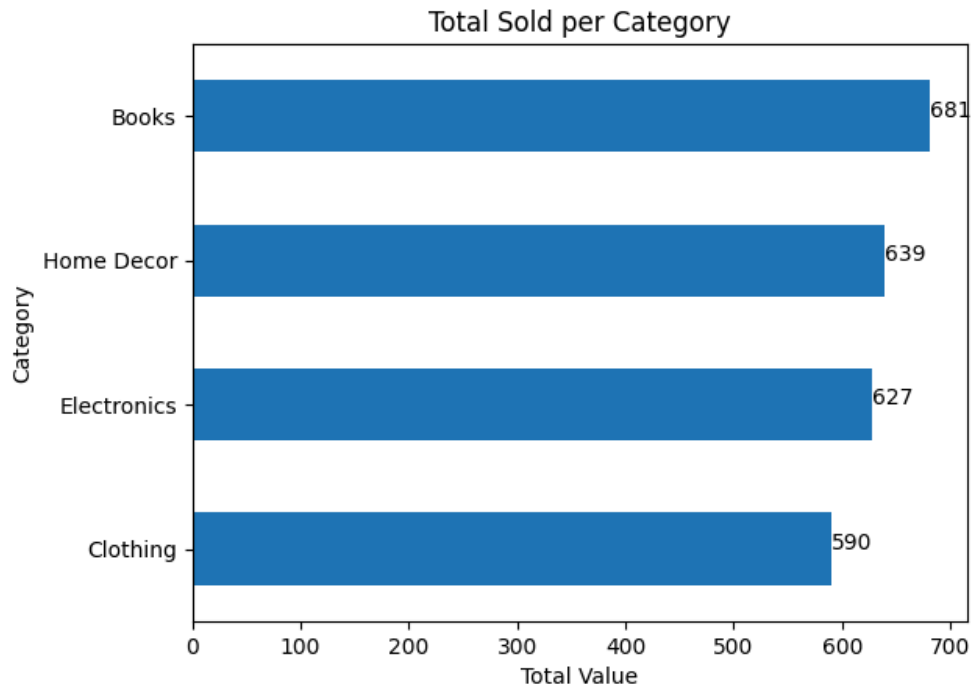
3. Customer Spending Analysis:



- The average amount spent by customers is \$3467. (The graph is also following a normal distribution.)
- We can increase this by implementing tiered loyalty programs to reward high-spending customers and encourage others to increase their purchase value.
- The baseline for receiving rewards can be just set slightly above the average spending amount to minimise resistance from the customers.

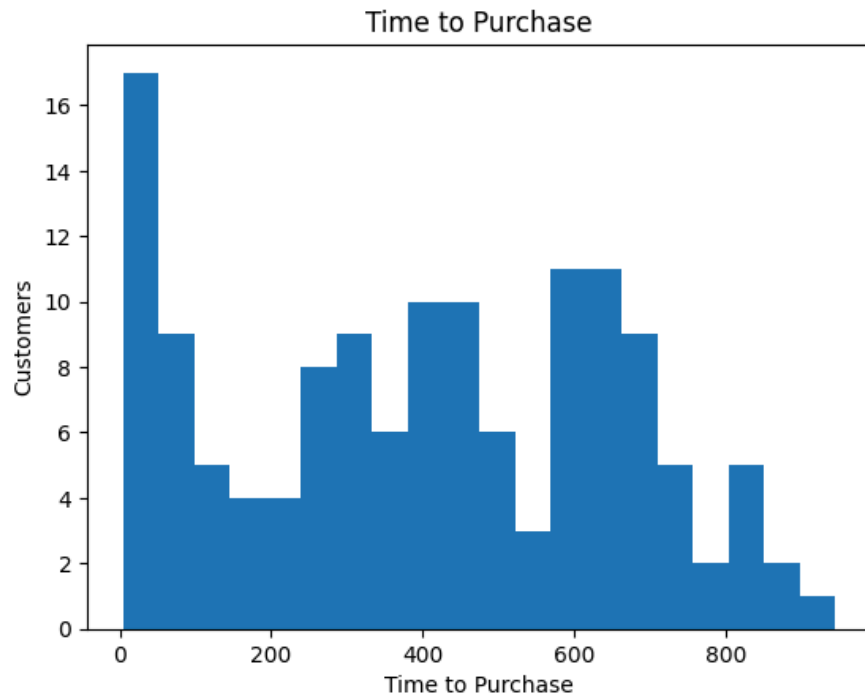
4. Product Analysis:





- Each category contributes almost equally to the total revenue generated with the largest difference being between **books** and **home decor** (6%).
- Home decor products' average price is a lot less than those of other categories but they also sell a lot. It is due to this that its share in the contribution to total value is the least.
- Since home decor products are really popular, more expensive ones can be sold to increase their contribution to the total value.

5. Customer Purchase Time:



- On average it takes a customer **403 days** to make a purchase after signing up while it takes **156 days** after a purchase for a customer to sign up.
- These numbers can be reduced by introducing 'Welcome Discounts', exclusive offers and coupons for signing up as well as email reminders and the like.